ě/		Application Number	09/474,096		
TRANSMITTAL FORM (to be used for all correspondence after initial filing) Total Number of Pages in This Submission 7		Filing Date	December 29, 1999		
		First Named Inventor	Amit. A. MERCHANT et al.		
		Art Unit	2154		
		Examiner Name	Larry D. Donaghue		
		Attorney Docket Number	02207/5600		
	ENCL	OSURES (check all that apply)			
Fee Transmittal Form		nment Papers Application)	After Allowance Communication to Group		
Fee Attached	☐ Drawii	.,	Appeal Communication to Board of Appeals and Interferences		
Amendment / Response	Licensing-related Papers		Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)		
After Final	Petition		Proprietary Information		
Affidavits/declaration(s)	Petition to Convert to a Provisional Application				Status Letter
Extension of Time Request	Power of Attorney, Revocation Change of Correspondence Address		Other Enclosure(s) (please identify below):		
Express Abandonment Request	Terminal Disclaimer Request for Refund		Certificate under 37 CFR 3.73(b) and copies of Assignment and other documents in chain of title		
Information Disclosure Statement	CD, N	Number of CD(s)			
Certified Copy of Priority Document(s)	Rema	arks			
Response to Missing Parts/			AUG 1 5 200		
Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53		Technology Center			
SIGNA	TURE OF	APPLICANT, ATTORNEY, (OR AGENT		
Firm or KENYON & KENY		vn W. O'Dowd, Reg. No. 34,687			
Signature Show' 21					
Date 8/14/03					
	CE	RTIFICATE OF MAILING			

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Signature

Date

PTO/SB/81 (05-03)

Approved for use through 11/30/2005. OMB 0651-0035 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE d to a collection of information unless it displays a valid OMB control number

POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

Application Number	09/474,096	`	
Filing Date	December 29, 1999	_	
First Named Inventor	Amit A. MERCHANT et al.		
Art Unit	2154		
Examiner Name	Larry D. Donaghue		
Attorney Docket Number	02207/5600		

I b amb u ann aint.							
I hereby appoint:					Place Custome	er	
	ustomer Number 23838			-	Number Bar Co Label here	ode	
☐ Practitioner(s) nar	med below:			<u> </u>	Labernere		
	Name		R	Registration	n Number	TRECE	IVED
						AUG 1	5 2003
					1	——————————————————————————————————————	Contar 210
	·					Technology (Celified 5 in
as my/our attorney(s) Trademark Office con	or agent(s) to prosecute the application nected therewith	identifie	ed above	, and to tr	ansact all busin	ess in the Pate	nt and
Please change the c	orrespondence address for the above-in	dentified	applica	tion to:			
	ioned Customer Number.				Place Custom		
OR Practitioners at C	ustomer Number			→	Number Bar C Label here	Code	
OR	zotomo: rtambo:						
Firm <i>or</i> Individual Name	Shawn W. O'Dowd						
Address	Kenyon & Kenyon						
Address	1500 K Street, N.W.						
City	Washington	State	DC		ZIP 2000)5	-
Country	USA		1				
Telephone	(202) 220-4255	Fax	(202)	220-4201			
I am the:							- -
Applicant/Invent	or.						
Assignee of reco	ord of the entire interest. See 37 CFR 3	3 71					
	37 CFR 3.73(b) is enclosed. (Form PT)		6).				
	SIGNATURE of Applic			e of Reco	rd		-
The undersign	ned (whose title is supplied below) is em		•			of the assigned	э.
Name Pam Ma	itlock	Т	itle	Secretar	y of Patents		
Signature Day	n Martock						
Date (1)	0.00		Tele	phone	408/765-1144		
NOTE: Signatures of	al the inventors or assignees of recor		e entire i		their represen	itative(s) are re	equired.
	if more than one signature is require	d, see b	oelow*.				
) forms are submitted.						

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/96 (04-03) Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

SIAII	ENIENT UNDER 37 CFR 3.73(D)				
Applicant/Patent Owner: Intel Corporation					
Application No./Patent No.: 09/474,096 Filed/Issue Date: December 29, 1999					
Entitled: PROCESSOR WITH A REPLAY SY	YSTEM THAT INCLUDES A REPLAY QUEUE FOR	IMPROVED			
	,a				
(Name of Assignee)	(Type of Assignee, e.g., corporation, partnership, univers	ity, government agency, etc.)			
states that it is:					
1. the assignee of the entire right,	title, and interest; or				
2. an assignee of less than the ent	tire right, title, and interest				
The extent (by percentage) of	of its ownership interest is %				
in the patent application/patent identified abo	ve by virtue of either:				
	the patent application/patent identified above. The a Office at Reel <u>010493</u> , Frame <u>0761</u> , or for which a c				
OR					
B. A chain of title from the inventor(s), of shown below:	the patent application/patent identified above, to the	current assignee as			
1. From:	То:	RECEIVED			
	e United States Patent and Trademark Office at				
Reel, Frame, or for	which a copy thereof is attached.	AUG 1 5 2003			
2. From:	То:	Technology Center 2100			
The document was recorded in the Reel, Frame, or for	ne United States Patent and Trademark Office at which a copy thereof is attached.	2,00			
3. From:	То:				
	e United States Patent and Trademark Office at				
Reel, Frame, or for	which a copy thereof is attached.				
☐ Additional documents in the chair	n of title are listed on a supplemental sheet.				
	assignment document or a true copy of the original on in accordance with 37 CFR Part 3, if the assignmen				
The undersigned (whose title is supplied belo	ow) is empowered to sign this statement on behalf of	the assignee.			
august 12,2003	Jam Martoch				
O Date (408) 765-1144	Signature				
Telephone Number	Pam Matlock Typed or printed nan	ne l			
releptione Number	Secretary of Patent	ľ			

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.







APRIL 03, 2000

PTAS

ANTONELLI, TERRY, STOUT & KRAUS, LLP R. EDWARD BRAKE 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209 UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER

ASSISTANT SECRETARY AND COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231



UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/29/1999

REEL/FRAME: 010493/0761

NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

in a see there was a second will a drowner gear theath of all the office

ASSIGNOR:

MERCHANT, AMIT A.

DOC DATE: 12/08/1999

RECEIVED

ASSIGNOR:

BOGGS, DARRELL D.

DOC DATE: 12/16/1999

AUG 1 5 2003
Technology Center 2100

ASSIGNOR:

SAGER, DAVID J.

DOC DATE: 12/03/1999

ASSIGNEE:

INTEL CORPORATION
P. O. BOX 58119
220 MISSION COLLEGE BLVD.
SANTA CLARA, CALIFORNIA

ROLL BURGADOR CORRER FOR FOR FOR FREE

SERIAL NUMBER: 09474096

PATENT NUMBER:

FILING DATE: 12/29/1999

ISSUE DATE:

A MIRRIA CLUNICUM COMO TOM PRANCINE COMO ENVIRON DE 010493/0761 PAGE 2

MAYA BENNETT, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

01	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	01-1999
AUG 1 / 2000	01-21-1999
DEK	01-21-193
REC	
TRANSMO C	01248868
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

FORM PTO-1595 MRD 12.29.99 s: Please record the attached original documents or copy thereof. To the Honorable Commissioner of Patents 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: INTEL CORPORATION Amit A. Merchant, Darrell D. Boggs and David J. Sager Internal Address: P. O. Box 58119 Additional name(s) of conveying party(ies) attached? Yes No Street Address: 220 Mission College Blvd. 3. Nature of conveyance: Merger Assignment City: Santa Clara ☐ Security Agreement ☐ Change of Name Other Execution Date: Dec. 8; Dec. 9, and Dec. 3, 1999, respectively 474096 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: Dec. 8, 9, and 3, respectively. B. Patent No.(s) A. Patent Application No.(s) Additional numbers attached? Yes No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence concerning document should be mailed: Name: ANTONELLI, TERRY, STOUT & KRAUS, LLP, 7. Total fee (37 CFR 3.41) Enclosed Internal Address: Any deficiencies may be charged to deposit account Authorized to be charged to deposit account Street Address: 1300 North Seventeenth Street 8. Deposit account number: 01-2135 **Suite 1800** (Attach duplicate copy of this page if paying by deposit account) City: Arlington State: VA Zip: 22209 DO NOT USE THIS SPACE 1/14/2000 HUILLARI 00000006 09474095 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. There & Brok December 29, 1999 R. Edward Brake Date Name of Person Signing Attorney Registration No. 37,784 Total number of pages including cover sheet, attachments, and document: 2

OMB No. 0651-0011 (exp. 4/94)

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we hereby sell, assign, and transfer to Intel Corporation, a corporation of Delaware, having a principal place of business at 2200 Mission College Blvd., P.O. Box 58119, Santa Clara, California 95052-8119, ("Assignoe"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements that are disclosed in the application for the United States patent and is entitled A PROCESSOR WITH A REPLAY SYSTEM THAT INCLUDES A REPLAY QUEUE FOR IMPROVED THROUGHPUT and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignce may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives;

ลทก้

covenant with said Assignce, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Si	gn <u>and Date</u> Below:	Each Inventor: Please also list the date that you signed the accompanying DECLARATION AND POWER OF ATTORNEY:
12/8/, 19 <u>99</u>	Name: Amil A. Merchant	12/8/99
12/16/ , 19 <u>99</u>	News: Darrell D. Boggs	12/9/99
12/3 , 199 Daie	Namac: David J. Sager	12/3/99

Assignment Document Rotum Address: ANTONELLL TERRY, STOUT & KRAUS, ILP 1300 North Seventeenth Street, Suite 1800 Arlington, Virginia 22209 (702) 312-6600